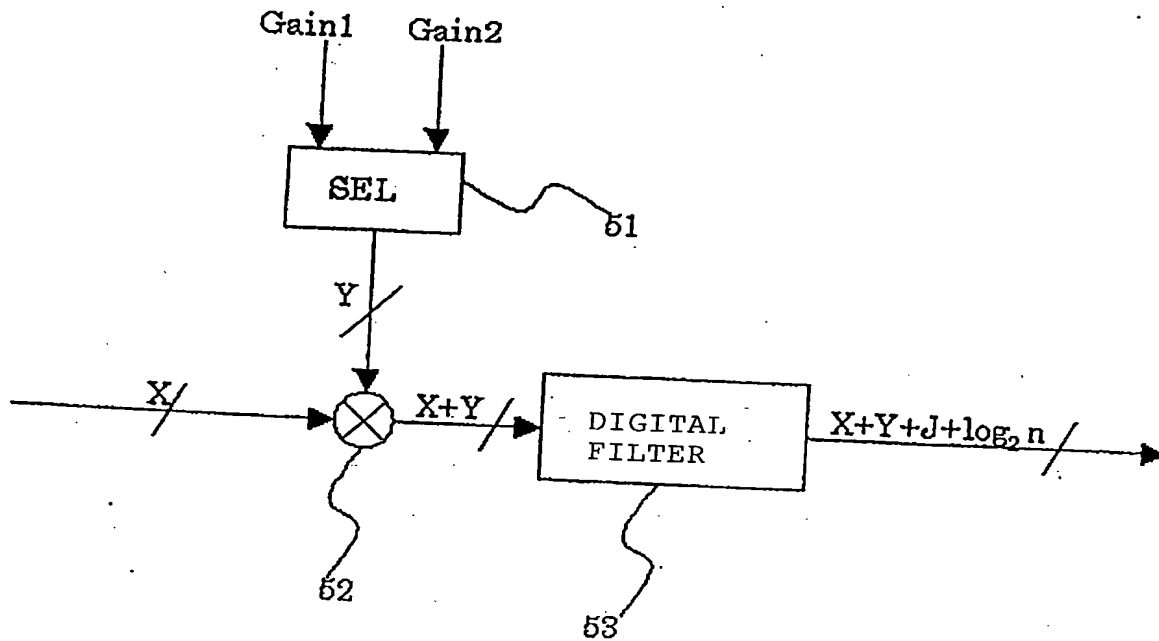


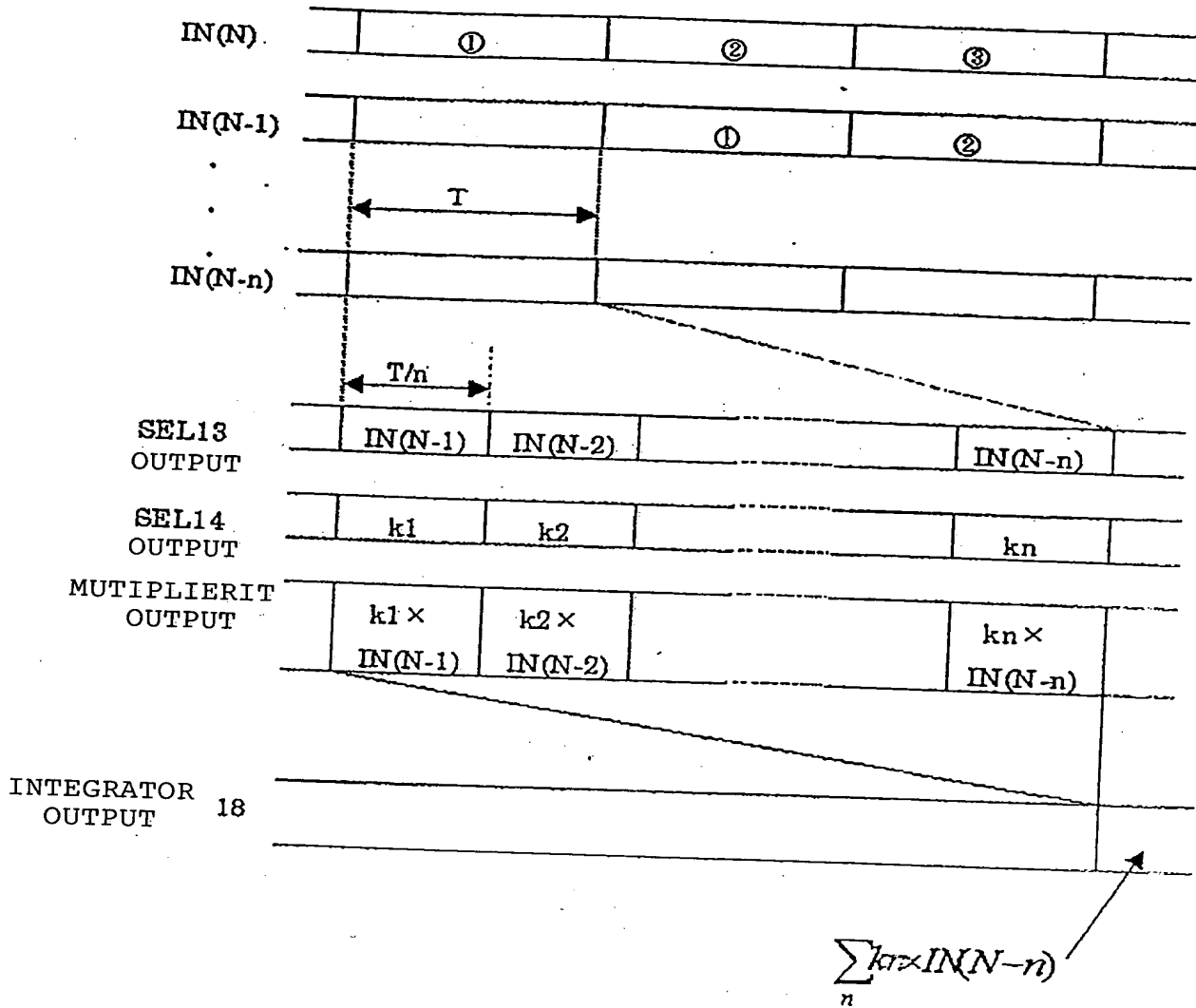
1. *What is the purpose of the study?*  
 2. *What are the research questions or hypotheses?*  
 3. *What is the study design?*  
 4. *What are the participants and sample size?*  
 5. *What are the variables and measurements?*  
 6. *What are the results and conclusions?*  
 7. *What are the limitations and strengths?*  
 8. *What are the implications for practice?*  
 9. *What are the ethical considerations?*  
 10. *What are the future research directions?*



The diagram illustrates a parallel processing system for calculating the sum of a series. It consists of the following components and connections:

- Input 11:** An input signal  $X+Y$  is fed into the first stage of a shift register.
- Shift Register 12:** A series of  $n$  stages, each containing a delay element  $D$ . The stages are labeled 1, 2, 3, ...,  $n$ . The output of each stage is connected to a selector block.
- Selector 13:** A block labeled **SEL** that receives inputs from all stages of the shift register and outputs a signal to a multiplier.
- Multiplier:** A block with a circle and an 'X' inside, which multiplies the signal from the selector with a signal from block 14.
- Block 14:** A block labeled **S**, **E**, and **L** (likely representing  $\log_2$ ). It receives multiple inputs  $k_1, k_2, k_3, \dots, k_n$  and outputs a signal  $J$  to the multiplier.
- Output 17:** The output of the multiplier is a signal  $X+Y+J$ .
- Integrator 18:** A block labeled **INTEGRATER** that receives the signal  $X+Y+J$  and outputs the final result  $X+Y+J+\log_2 n$ .

Fig. 3 (Prior Art)



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Fig. 4

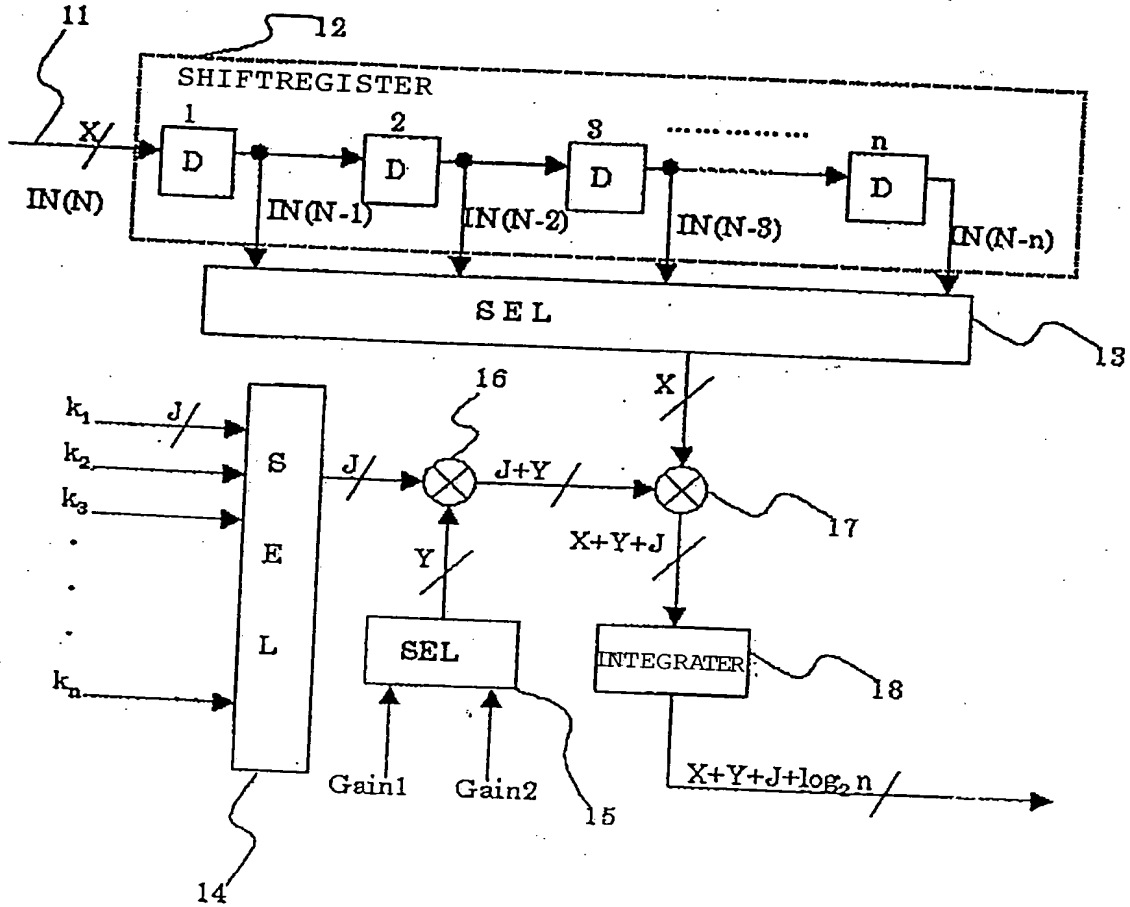
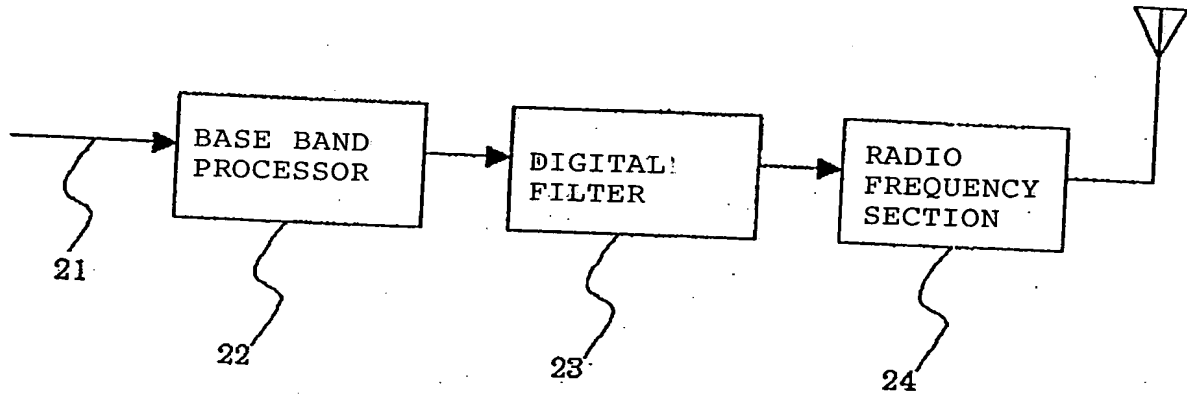


Fig. 5



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Fig. 7

